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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,657	06/06/2005	Itaru Homma	XA-10381	4620
181 7590 05/31/2007 MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			EXAMINER COOK, NIA R	
			ART UNIT 2851	PAPER NUMBER
			MAIL DATE 05/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/537,657	HOMMA, ITARU	
	Examiner	Art Unit	
	Nia Cook	2851	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) ☒ Claim(s) 5-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>June 6, 2005</u> | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because
  - a. reference numbers of the following elements are omitted:
    - i. holographic optical device
    - ii. viewfinder display
    - iii. camera.

Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mukawa (US 2003/0147112).

Mukawa discloses a pair of spaced apart board-shaped transparent members facing each other (Figures 5A, 5B); transparent electrodes facing each other (422,423; [0034]); an orientation-changeable liquid crystal (424); an orientation-fixed liquid crystal (425); the orientation-changeable liquid crystal and the orientation-fixed liquid crystal being arranged alternately with a striped shape (Figures 5A, 5B).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-7,9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukawa (US 2003/0147112) in view of Teremy et al. (US 5,978,607), Iwane (US 6,556,179), and Hasegawa (US 6,169,854).

Regarding claim 6, Mukawa discloses substantially the claimed invention except forming figures, shapes, and letters to be displayed as given information. Teremy discloses a viewfinder that displays images using a holographic optical element (column 2, lines 55-66). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a function which produce shapes and letters, as taught by Teremy, to provide the ability to display information in the form of shapes and letters to improve user operation.

Regarding claim 7, Mukawa discloses substantially the claimed invention except the given information being displayed as a dot matrix. Hasegawa discloses a dot-matrix display unit that is capable of displaying characters, codes, symbols, and text (column 7, lines 11-16). Furthermore, it is an established display and printing method for photographic apparatus. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a display unit using dot-matrix, as taught by Hasegawa, to provide a low-cost, conventional implementation of a display unit.

Regarding claims 9 and 10, Mukawa discloses substantially the claimed invention except a camera with a viewfinder screen. Teremy discloses a camera with a viewfinder that uses a holographic element to illuminate images on a display unit (column 6, lines 59-63). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a camera with a viewfinder screen, as taught by Teremy, to provide an easily accessible method for viewing the projected images.

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Regarding claim 11, Mukawa discloses substantially the claimed invention except a light source arranged near a side and illuminates the holographic optical element. Iwane discloses that the illuminating means can be arranged so that the light may be incident on end surfaces (column 4, lines 30-33). Furthermore, he teaches that end or side illumination increases the brightness of the display unit. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a configuration, as taught by Iwane, to improve the display pattern by increasing the brightness index of the display.

Regarding claim 12, Mukawa discloses substantially the claimed invention except the light source illuminating the holographic optical element entirely irrespective of applied voltage. Iwane discloses using a light source, such as a LED, to illuminate a holographic optical element without an applied voltage. Furthermore, he teaches a self-light-emitting display to emit light, whereby, the display pattern portion can be brightly displayed (column 10, lines 37-52). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a self-light-emitting display, as taught by Iwane, to improve the brightness of the display unit.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stavely et al (US 7,016,604) discloses using a holographic optical element to control the autofocus function of a camera.

Pollard et al. (US 2001/0016084) discloses using a holographic element in a document capture device.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nia Cook whose telephone number is (571) 270-1741. The examiner can normally be reached on Monday through Friday 7:30a - 5:00p E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bruce can be reached on (571) 272-2487. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
NRC

  
DAVID BRUCE  
SUPERVISORY PATENT EXAMINER